



The Perth Gender Picture (PGP): Young people's feedback about acceptability and usefulness of a new pictorial and narrative approach to gender identity assessment and exploration

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ABSTRACT

Background: A number of psychological assessment tools have been developed to describe various dimensions of gender. Some of these tools are restricted to a binary gender concept and are inflexible in reflecting how a young person's gender may change and develop over time. Most are text questionnaires which require a good level of literacy.

Aims: This study aimed to evaluate a newly developed pictorial tool that facilitates a conversation about gender between a child or adolescent (aged 11–18) and their clinician, enabling a diverse understanding and expression of gender identity.

Methods: The Perth Gender Picture (PGP) was co-created between clinicians and young clients between 2016 and 2018. In 2018, the measure was evaluated through a pilot study at the Gender Diversity Service at Perth Children's Hospital in Western Australia. After use of the PGP during a clinical consultation, clients were invited to fill in a feedback questionnaire about their experience of its use. Clinicians participated in unstructured interviews to give their feedback.

Results: Most participants rated the PGP as easy to understand, acceptable and useful, and many stated that they found gender easier to describe with the picture rather than words. The results show positive uptake from clients, demonstrating feasible implementation with gender diverse young people.

Discussion: This evaluation positions the PGP as a useful tool to facilitate conversations about gender identity between gender diverse children and adolescents and their clinicians, in a nonjudgmental and playful manner. It is well-suited to young people who may have limited literacy or difficulty with complex language. The PGP has potential for use in other age groups and non-clinical contexts.

KEYWORDS

Assessment; child and adolescent; gender diverse; gender dysphoria; pictorial; transgender

Introduction

Increasing numbers of young people worldwide are identifying as trans or gender diverse (TGD), that is, identifying with a gender identity that does not align with the sex that was assigned to them at birth. TGD people may identify as male, female, non-binary, agender, gender fluid, genderqueer, or any other gender identity (Connolly et al., 2016; Strauss et al., 2017). The experienced

incongruence between a person's gender identity and assigned sex can sometimes lead to significant distress and impairment in psychosocial functioning, known as gender dysphoria (American Psychiatric Association [APA], 2013).

TGD people seeking gender-affirming treatment face the challenge of attempting to communicate very personal and complex details of their identity, gender development, and wishes to

health professionals within a specialist setting, especially when attempting to access gender-affirming interventions (e.g., hormones). This is compounded by additional barriers that TGD young people often face when seeking services, including discrimination, clinicians inexperienced in TGD care, and refusal of care (Strauss et al., 2017). With limited clinical resources available in pediatric centers with dedicated gender services, clinicians are called upon to develop a trusting therapeutic relationship within a relatively short time. There are currently no consensus guidelines as to which specific psychological assessments should be used with TGD child and adolescent clients (Berg & Edwards-Leeper, 2018).

A gender affirmative approach, validating, respecting, and supporting an individual's experienced gender, is recommended (Coleman et al., 2012; Telfer et al., 2018). Within this model, mental health professionals have a responsibility to provide a safe, respectful, supportive and facilitating assessment approach (Australian Psychological Society, 2018), which can be assisted by the use of standardized assessment tools which encourage conversations to emerge. Very few specific measures of gender have been evaluated for their inclusiveness and acceptability to TGD clients. Hendricks and Testa (2012) have argued that clinicians working with TGD populations need to assess their own biases and understanding of gender, as well as seek out and receive adequate training to work with TGD clients to understand the unique stressors that this population faces, and the diversity of gender identities that exist. Without such awareness, clinicians may use assessments of gender that are not inclusive of all gender identities, inadvertently scripting and limiting the potential outcomes. It is important to choose carefully when considering specific measures and instruments to use with trans and gender diverse children and adolescents, reflecting on their purpose - for research, or for the benefit of the individual child and family to clarify diagnosis and care needs - and bearing in mind the risk that routine use of extensive standard psychological assessment batteries can convey a message that something is wrong with the child's development that needs to be fixed (Berg & Edwards-Leeper, 2018).

A variety of empirically validated measures intended for use in gender clinics, to assess the

nature and severity of gender incongruence and gender dysphoria in children and adolescents, have been reported. For example, the Gender Identity Questionnaire (Johnson et al., 2004; Zucker & Bradley, 1995) is a 16-item parent report measure where parents respond to statements with five or six options, for example "1. His favorite playmates are: a. always boys, b. usually boys, c. boys and girls equally, d. usually girls, e. always girls, f. does not play with other children." Questions about the child's statements and expressed wishes about gender, as well as stereotypically gendered observed behaviors, are included. The Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (Deogracias et al., 2007) is a 27-item self-report measure with male and female versions. Clients rate each item on a 5-point Likert scale. Responses range from 1 (Always) to 5 (Never) on statements such as "In the past 12 months, have you had the wish or desire to be a man?" Another measure is the Utrecht Gender Dysphoria Scale (UGDS), (Schneider et al., 2016) a 12-item selfreport measure available in male and female versions, developed for use in a child and adolescent gender clinic, in which clients rate their agreement on a 5-point Likert scale ranging from 5 (Agree Completely) to 1 (Disagree Completely) to statements such as "I feel unhappy if someone calls me a boy." Although these measures have been commonly used clinically and in the published literature, they are not without limitations. All the measures discussed above assess gender in a binary male/female frame, not allowing room for young people whose gender sits outside of the binary. An increasing number of young people identify in a non-binary or genderfluid way (Strauss et al., 2020).

Several measures have been developed to address this limitation. The Gender Preoccupation and Stability Questionnaire (Hakeem et al., 2016) is a 14-item self-report measure intended for use with people age 18 and over, inclusive of any gender identity; a sample question is "In the past 2 weeks has your sense of your gender changed from one day to the next?" It has not been validated for use with children and adolescents. To accommodate non-binary gender identity experience, the UGDS was revised and adapted into an

18-item UGDS - Gender Spectrum (UGDS-GS; McGuire et al., 2019). It has been evaluated favorably for construct validity in adolescents and adults across transgender, nonbinary and LGBQ samples (McGuire et al., 2020). The measure is a single version developed for use with adolescents and adults across the spectrum of gender identities. It assesses the experience of the distress related to the incongruence between assigned sex and identified gender identity. The UGDS-GS asks respondents to select a response that best describes how much they agree with each statement ranging from 1 (Disagree Completely) to 5 (Agree Completely). An example of a Gender Dysphoria subscale item is "I hate the sex I was assigned at birth", with higher scores indicating greater gender dysphoria. The Gender Affirmation subscale items are worded so that high scores reflect connection with the affirmed gender; an example item is "It feels good to live as my affirmed gender." Riley's (2017) Gender Feeling Amplitude (GFA) scale is a 68-item list of words and phrases that is used to highlight the feelings and severity of a young person's distress. The GFA can be used longitudinally to facilitate conversations within clinical contexts about a young person's experience of their gender identity over time (Riley, 2017). While the GPSQ, UGDS-GS and GFA are clinically useful and can be used to index changes in gender identity experience over time, they are still written language-based measures requiring a reasonably adequate level of reading comprehension, which may limit usefulness in some populations, including children and younger adolescents. In both child/adolescent and adult clinical settings, studies have documented that a substantial proportion of TGD clients have autism spectrum disorder (ASD) or autism traits (De Vries et al., 2010; Mahfouda et al., 2019; Van Der Miesen et al., 2016), which may also impact language use and reading comprehension. This highlights the potential advantages of developing a gender measure which is simple and pictorial, without complex language. Furthermore, because all of the existing measures restrict the client to a choice of scripted text options, they do not open up a space for the young person to express new, different, unexpected thoughts and feelings.

Clinicians at the Child and Adolescent Health Service Gender Diversity Service (GDS), located at Perth Children's Hospital in Western Australia, noted that the current measures used to assess gender dysphoria and gender diversity do not always make it easy for an individual to accurately represent their unique personal gender identity, nor do they easily allow for fluidity of gender over time. Anecdotally, many clients in our service have reported their dislike of using measures which ask questions in a binary and categorical male-female frame only. The team also wished to minimize the burden of filling out questionnaires for young people. These considerations led the team to develop a tool that would be clinically relevant and acceptable to TGD clients, by allowing gender to be mapped on a continuum, and in a more fluid way, in a face to face consultation.

The aim of this study was to evaluate the Perth Gender Picture (PGP), a new measure of gender identity that aimed to be suitable for TGD adolescents over a broad age range (11 to 18) that: (a) used pictures/diagrams, reducing the requirement for English literacy; (b) allowed for color, creativity and playfulness in its use, with no right or wrong answers, and no restrictions on how a young person may choose to use the picture; (c) facilitated expression of the whole gender spectrum; (d) enabled the use of the young person's own words to describe their gender at present and its development over time; and (e) was acceptable to clients, while being clinically useful across a range of ages and developmental stages and capacity. The GDS clinicians (a child and adolescent psychiatrist and a clinical psychologist, with discussion and consultation with the wider team including mental health clinical nurse specialist and endocrinologists) developed the PGP between 2016 and 2018 in individual and joint clinical consultations, evolving from their efforts to use diagrams to help young people explore and express gender identity, using creative experimentation and continuous feedback from young people, and incorporating suggestions and innovations from young people. When a consistent form of the measure had evolved, and was being used regularly in clinical practice in the service alongside other measures, the GDS team felt it imperative to seek formal client feedback about the acceptability and usefulness of this new measure, for service development and quality improvement. The PGP was evaluated

through a mixed methods pilot investigation between August and November in 2018.

Methods

Setting

All participants in this study were clients of the GDS, which is a dedicated tertiary service working with TGD children/adolescents and their families. The GDS is a free, public, evidence-based, specialist clinical service, which provides information, consultation, assessment, support, and access to hormonal intervention (puberty suppression and cross-sex hormones) in a gender-affirmative model. Its philosophy is to encourage a shift in emphasis from being problem-focused to a perspective of building child/family uniqueness, strengths, and resilience. The service also provides consultation, liaison, education and advocacy for families, schools, health professionals, and the wider community. The GDS is multidisciplinary, including specialist clinicians in clinical psychology, child and adolescent psychiatry, a mental health clinical nurse specialist, endocrinology, speech pathology, a reproductive medicine specialist, and a dedicated research officer. Children and adolescents can be referred to the GDS by their health care provider, including general practitioners, pediatricians, public Child and Adolescent Mental Health Service, and psychologists. The service has close links with community support services for gender diverse youth and families.

Procedure

Current clients of the GDS seen at initial assessment or scheduled psychiatry or clinical psychappointments, ology follow-up who completed the PGP with their clinician, were invited to complete the evaluation questionnaire after the session on the same day. Approval for granted by the study was Quality Improvement Child and Adolescent Mental Health Child and Family Engagement Consumer Engagement Committee, at Perth Children's Hospital (GEKO activity #27006). Clients were informed in writing that their de-identified responses could be published. Clients were informed that they were free to decline to

participate, and that the research psychologist would look at their responses, but their treating psychiatrist or psychologist would not look at their questionnaire responses until collated and de-identified. No clients declined.

Clients were then asked to complete the PGP evaluation following administration of the tool in their usual clinical appointment. This data was entered by the Research Officer and not viewed by the client's clinician. After the participant data collection, feedback from the two clinicians was also collected by the Research Officer by brief unstructured interview about their experience of working with the PGP.

Measures

The PGP (Figure 1) is a pictorial and narrative technique used in a face-to-face individual clinical consultation with a client to explore and explain their gender identity. A standardized script (Figure 2) is used to talk the young person through the use of the PGP. Importantly, an individual can represent their identity in more than one place at the same time and can show change over time. The PGP is always used face to face with the clinician as an interactive conversation, supported by the explanatory script, never as a stand-alone handout. It can be used again at a later point in time, allowing reflection on any changes over time.

The PGP was evaluated for consumer acceptability and perceived usefulness, using a mixed methods approach. The evaluation questionnaire consisted of seven items on a 5-point Likert scale that ranged from 1 (Strongly Disagree) to 5 (Strongly Agree) with higher scores indicating higher client-reported acceptability and usefulness of the PGP (see Table 1). Question 7, which asked if the PGP should be changed, was reverse scored. Descriptive statistics (means, standard deviations, and medians) were calculated using SPSS (Version 24).

Each of the seven items had a follow-up openended question asking for elaboration on the specific response (Table 1). There were two additional qualitative questions that asked participants how they would make changes to the PGP and how the service could better facilitate conversations

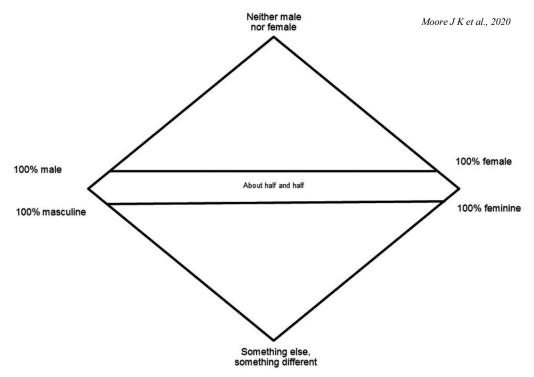


Figure 1. The Perth Gender Picture, Moore J. K. et al., 2020.

about gender. Qualitative responses were coded by one investigator (PS) and checked by a second investigator (CT). All qualitative responses were thematically analyzed and coded using NVivo qualitative data analysis software (Version 11; QSR International Pty Ltd., 2015), organizing the responses into main themes using a general inductive approach (Thomas, 2006). Illustrative quotes were selected by team consensus (JM, PS, CT), with care taken to represent any negative or critical responses.

Administration of the PGP

Clinicians first read out the structured script guide (see Figure 2) while pointing to the relevant parts of the PGP. The guide asked clients to mark where their current gender fits on the picture and that this could be in more than one place. The guide also included prompts for the clinician to ask the young person to elaborate further such as "What are some words that describe that place on the picture?" "How has it changed over time?" and "How would you like it to be in the future, in 5 or 10 years?" Clinicians make it clear to clients that the PGP does not have any "right answers" and that they could feel comfortable to explore it in a playful manner.

Participants

Twenty-four clients from the GDS completed the PGP and feedback form. Participants were aged from 11 to 17 ($M\!=\!15.79\,\mathrm{years}$, $SD\!=\!1.41$). All 24 quantitative and qualitative responses were included in the analysis. Sixteen participants (66.67%) were assigned female at birth. Fifteen described their gender as male, eight as female, and one as non-binary. Of these 24, clinicians reported that four had autism spectrum concerns: two with traits of autism without formal diagnosis, and two with a formal diagnosis of autism spectrum disorder. The two GDS clinicians who provided feedback on the PGP were the child and adolescent psychiatrist (JM) and the senior clinical psychologist (HWVH).

Results

In this section, we present examples of completed PGPs, followed by participants' quantitative Likert scale feedback, and finally a summary of the qualitative open-text responses to each question.

Figure 3 below shows examples of four completed PGPs. These have been redrawn and altered, as de-identified composite representative responses, in order to ensure the confidentiality of individual participants.

Perth Gender Picture Instructions

The clinician talks through this script while pointing to relevant parts of the picture. Make it clear that the PGP is not a test, has no "right" answers, and that young people have the freedom to explore it playfully.

- Sometimes it is easier to show things in pictures as well as trying to describe them in words.
- This is a picture that shows different ways that people can sometimes feel in their gender identity. I will ask you to show your gender identity on this picture it can be in one place, or in more than one place.
- At the top there is a place to describe feeling neither male nor female.
- At the bottom there is a place to describe feeling something else, something different.
- There is a line for male and female. 100% male or all male is here on the left, and 100% female or all female is here on the right. "Male" and "Female" describe gender identity, how people describe themselves.
- There is another line for masculine and feminine. "Masculine" and "Feminine" are more about culture and society, how people express themselves in what they wear, what they do, what they like, what they say, how they act. For example, a person can be male and quite masculine, or female and quite feminine. Or a person can be male but quite feminine or female but quite masculine. So, 100% masculine is here on the left, and 100% feminine is here on the right.
- Then there is room in the middle for feeling about half and half between male and female, or between masculine and feminine.
- You could be in one place or more than one place. You could be a dot or a line, a shape or an area. You can be different places at different times, or you can be changing over time. You can be more than one place at the same time. And there is plenty of room outside the box, around the edges.
- Can you please take a colour or colours, and mark where you feel your gender identity is right now, at this time?
- What are some words to describe that place on the picture? (Clinician writes them on picture, unless young person has written them on picture already.) How long has it been like that?
- How has it changed over time? Can you show me by marking how it used to be? What are some words to describe that place on the picture? (Clinician writes them on picture.)
- How would you like it to be in the future, in 5 or 10 years? Could you please mark how you would like it to be in the future? What are some words to describe that place? (Clinician writes them on picture).
- Thank you. We'll keep that in your file, and we might look at it together again in the future.

Figure 2. (Text Box) Perth Gender Picture instructions.

Summary of quantitative evaluation

Mean scores, median, and range for each of the seven evaluation questions are shown in Table 2. Responses were notably positive. Negative responses were uncommon: for example, for the statement "I found the Perth Gender Picture easy to understand," only one participant of the 24 endorsed "Disagree" and none endorsed "Strongly

Table 1. Perth Gender Picture evaluation questionnaire.

Question number	Item I found the Perth Gender Picture easy to understand.	Follow-up question		
1		Why or why not?		
2	The Perth Gender Picture was easy for me to use.	Why or why not?		
3	The Perth Gender Picture helped me to describe my gender to the psychologist and/or psychiatrist.	Why or why not?		
4	I could easily show my gender on the picture.	Why or why not?		
5	The Perth Gender Picture was easier to use than trying to explain my gender in words.	Why or why not?		
6	I liked using the Perth Gender Picture.	Why or why not?		
7	I think the Perth Gender Picture should be changed to make it better.*	Why or why not?		
8	-	How would you change the Perth Gender Picture? Please draw your suggestions in the box below.		
9		Do you have any other suggestions about how the GDS could make it easier for you to explain and talk about your gender?		

^{*}Item 7 was reverse scored.

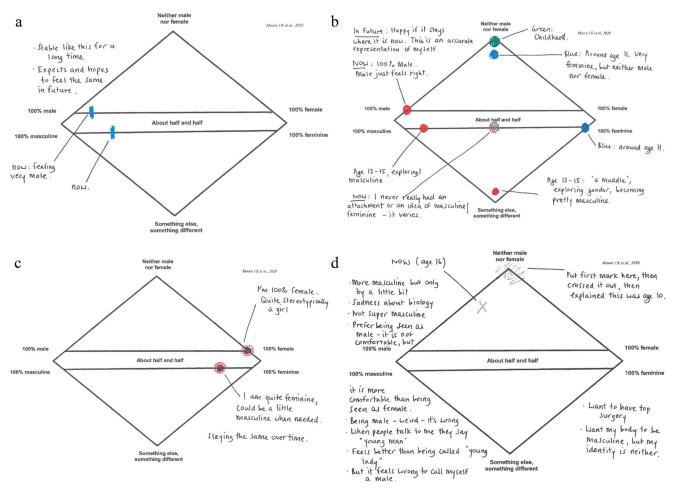


Figure 3. (a) Completed Perth Gender Pictures: 17-year-old who identifies as male, birth assigned female. (b) Completed Perth Gender Pictures: 16-year-old who identifies as male, birth assigned female. (c). Completed Perth Gender Pictures: 17-year-old who identifies as female, birth assigned male. (d) Completed Perth Gender Pictures: 16-year-old who identifies as non-binary, birth assigned female.

disagree." Similarly, for questions 2, 3, 4, 5 and 6 (below), only one participant endorsed a negative response, for each statement. For question 7 "I think the Perth Gender Picture should be changed to make it better," two of the 24 participants endorsed "Strongly agree" and one endorsed "Agree."

Summary of qualitative evaluation

Most responses were a brief one to two sentences. Seventeen participants gave a response to every open text question, whereas seven participants responded to only some of the open text questions. Only one participant made no comments. Themes emerging for each question were as follows:

1. I found the Perth Gender Picture easy to understand.

The majority of participants found the PGP very easy to understand. Eight responses fell under the theme "very easy," for example,

It was a very simple concept to understand and use. It was straight forward and there was no confusion.

Another eight responses expressed that it was thoroughly explained and easy after explanation, for example:

I did need an explanation but after it was given it made complete sense.

Three responses expressed a sense of confusion or too many options:

I feel like it needs to be slightly more straightforward, there are too many options for it to be accurate.

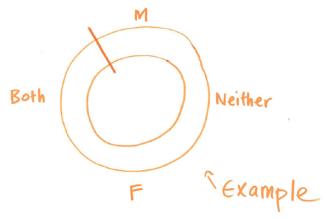


Figure 4. A suggested alternative for the Perth Gender Picture.

One participant stated they did not know what to write or draw on the PGP as it is hard to talk about self.

2. The Perth Gender Picture was easy for me to use.

Most participants reflected that it was simple and easy to use. Seven responses related to the theme "it was easy to understand":

Yes it was pretty easy to understand and if I didn't understand a bit you figure it out quick.

Six responses were grouped under the theme "Simple usage and easy to use"

It allowed me to clearly indicate where my gender identity and presentation lie.

Four responses reflected on inclusiveness of all gender identities.

All the things I identified with could be put on to the picture. It is inclusive for anyone to use.

Being able to draw multiple shapes was very comforting.

I believe it represented my gender identity well. I like that it had the options for "neither", "both", and "something different".

Three responses described it as easy after explanation.

One response indicated that it was not inclusive enough:

It didn't encompass my feelings towards gender vs. gender expression.

One participant noted the importance of the caring context:

It was easy because everyone is nice and caring.

 The Perth Gender Picture helped me describe my gender to the psychologist and/or psychiatrist.

Several participants who found the PGP helpful in describing their gender to their clinician expressed that this was because the PGP was easier than having to explain their gender using

Table 2. Evaluation questionnaire agreement.

Question number	ltem	Mean (SD)	Median	Range
1	I found the Perth Gender Picture easy to understand.	4.26 (0.75)	4	3
2	The Perth Gender Picture was easy for me to use.	4.61 (<i>0.72</i>)	5	3
3	The Perth Gender Picture helped me to describe my gender to the psychologist and/or psychiatrist.	4.65 (0.71)	5	3
4	I could easily show my gender on the picture.	4.70 (0.93)	5	4
5	The Perth Gender Picture was easier to use than trying to explain my gender in words.	4.09 (1.12)	5	4
6	I liked using the Perth Gender Picture.*	4.32 (0.89)	5	3
7	I think the Perth Gender Picture should be changed to make it better.*	3.55 (1.39)	4	4

^{*}Question 6, N = 22; Question 7, N = 20.



words. Five responses related to this theme, for example

It showed my exact identity without having to put it into words.

Sixteen further responses expressed that the PGP was helpful in different ways, making it easier to talk about gender with the clinician and explore and clarify gender.

It made me comfortable talking about femininity as a male.

Yes, because it showed what I feel, present and want to be in the future.

It laid all the info out and we were able to refer to it when discussing my identity.

One participant did not find it provided any added benefit:

It didn't do anything I could already explain with words.

4. I could easily show my gender on the picture. Seven participants described how the PGP gave them plenty of room for expressing their authentic gender.

The scale gave me a lot of room and opportunity to place it where I felt comfortable. It is clear and needed little to no explaining for my placement.

I am 100% male. I feel as though I would still be able to represent my gender identity even if I wasn't 100% a binary gender.

It gave me freedom beyond one point on a spec-

Seven further responses described it in various ways as easy to understand and use. Three responses were negative.

I don't think gender is something that can be expressed on paper.

The Perth Gender Picture was easier to use than trying to explain my gender in words. Twelve participants responded positively that the PGP was easier than finding words, that it was clear and simple, or that it helped make gender clearer for others to understand.

I find it difficult to find and say words for how I'm feeling but the picture made it visual and easy to read.

I don't really know if it's easier but it's probably easier for her to understand. I could show my femininity without feeling invalidated.

Two commented that describing gender in

words or in the picture were about the same: They were the same difficulty.

Two commented that the picture helped, but that verbal explanation was essential also:

I'm not sure. I feel like it helped assist me verbally say it but also it would not have enough information without speaking.

Two did not find it additionally helpful, as they are comfortable speaking about gender.

I feel I'm pretty good with words but if I wasn't it would be very helpful.

One participant did not find it helpful to show their gender:

No, because it didn't.

I liked using the PGP.

Sixteen responses described reasons why they liked the PGP. Among these, four described it as well-designed and simple. Three highlighted again that they find it easier than talking. Two related to being a "visual person," for example: It was cool, creative and as a visual person I like drawing things out.

Two participants also reflected that while the PGP may not be particularly useful for them at the current stage of their gender journey, it may be useful for other TGD young people. For example,

It's a helpful technique however I feel it is only useful at the start of transition or for someone questioning their gender.

One compared the PGP to other gender measures:

It isn't lengthy and doesn't need a lot of thought. I found it better than those long questionnaires that take a while (I don't mind them though).

Others highlighted inclusiveness, and facilitation of self-reflection:

It's a way to think and discuss with yourself. Very inclusive!

Two participants commented that they did not like using the PGP.

I didn't mind using it but it was not something I like doing.

7. I think the Perth Gender Picture should be changed to make it better.

Fifteen participants indicated that they do not think it needs to be changed, as they like it in its current form, for example:

It is great how it is. It's inclusive and simple and

can suit anyone's personal situation.

Two responses fell under the theme "too vague or confusing."

Maybe a bit simpler to understand, it was a bit confusing at first.

One participant suggested a change in the layout of genders:

100% male and 100% female are the same side as 100% masculine or feminine.

In response to Question 8, five participants drew some alternative of the PGP, for example, using rounded corners, or using a circular shape rather than a diamond (Figure 4).

Clinician feedback from unstructured interviews

Both the clinical psychologist and child and adolescent psychiatrist stated that the development of the PGP has incorporated feedback from clients and has been modified through clinical consultations over the three years. The clinicians using the PGP find it useful in daily practice. They suggest it can be used as a form of psychoeducation with younger clients, for example 10- or 11-year old, to help the young person develop an awareness of the difference between diverse personal identities and culturally typical conforming gender expression. Diagnostically, clinicians find it useful with young people over the age of 11 and commented that young people who identify in a non-binary way are often particularly happy to be offered the opportunity to explore the PGP with them. The clinicians believe that this is because the PGP allows for relaxed and playful conversations around gender, with greater openness and less inadvertent scripting of responses. Clinicians emphasized that they make it clear to young people that the PGP is not a test, has no "right" answers, and that young people have the freedom to explore it playfully. Sometimes a young person will want to share the PGP with a parent or other family member, to help explain their feelings; clinicians commented that at times this has been helpful to improve family understanding and support of gender identity. Clients sometimes ask to repeat it, or to go back and look at previous PGPs together to see how gender identity may be evolving. The clinicians stated their strong view that the PGP should not

be used as a stand-alone handout, but as a tool used face to face with its explanatory script to support interactive clinical conversations. One clinician prefers to draw the PGP while explaining it to the client, rather than using a printed version. In summary, clinicians expressed that completion of the PGP has become a valuable part of their thorough clinical assessment and gender-affirming conversations.

Discussion

The aim of this study was to evaluate client acceptability of a clinically useful gender assessment tool which aimed to be suitable for working with children and adolescents over a broad age range of 11 to 18, including young people who have autism or reading difficulties, which uses a pictorial method that allows for creativity while facilitating individual gender expression.

Overall, the PGP was well received by young people. The quantitative and qualitative evaluation indicated that the PGP is easy to use, inclusive of diverse genders, validates gender expression, facilitates communication, is easier to use than verbal explanations of gender for many participants, and can promote self-reflection. The majority of participants indicated that the PGP did not need any further changes.

We are unaware of any other existing tool that can be used to assess gender identity using a pictorial and narrative method, exploring the full gender spectrum over time with TGD children and adolescents. A strength of this study was the collection of both quantitative and qualitative feedback from clients as well as unstructured feedback from clinicians. It is important for service improvements to be client-led to ensure relevance and acceptability. While the PGP does not provide numerical scores, it can be used on multiple occasions to observe changes over time and can be used in combination with other measures assessing gender identity.

The PGP could also potentially be helpful when used with younger children or adult clinical populations to assist with understanding gender identity and expression. It could be especially useful for young people to use outside of clinical contexts with their peers or parents when trying to

communicate about gender. Previous research has highlighted that communication about gender between parents and their gender diverse children could be improved (Riley et al., 2013). Some clinicians and educators use The Gender Unicorn (Pan & Moore, 2014) to illustrate concepts and expand understanding of gender beyond binary; the Perth Gender Picture can be used in a similar way.

A limitation of the current study was the small sample size, and lack of diversity within the sample, with only one self-identified non-binary participant and two participants with a formal ASD diagnosis, though an additional two with strong ASD traits. However, the PGP shows promise as an inclusive measure for individuals who may have difficulty completing traditional language-based measures (such as those with ASD, learning difficulties, or dyslexia). In order to properly explore the use of the PGP with people who have non-binary gender identities and young people with ASD, it is important that future research includes a larger, more representative sample. No information was collected about participants' stage of gender transition; future research should explore the acceptability of the PGP with clients as they go through gender-affirming medical intervention to determine if the PGP is still relevant to their gender journey. Finally, the project would have benefited from in-depth interviews with study participants to explore their feelings about the PGP and their experience with completing the measure.

Conclusion

The PGP is a novel, client-friendly, and clinically useful tool to assess gender identity and changes in gender over time in young people who are presenting to a child and adolescent gender clinic seeking gender-affirming health care. The inclusion of the PGP in clinical practice can help to facilitate conversations between the clinician and client around gender in an open and nonjudgmental manner that allows for a full spectrum of gender identity and expression to be explored. Future research should explore direct comparison to other measures of gender identity in clinical practice, and whether the PGP may also be useful in younger child populations, adult populations,

and outside of clinical contexts to assist people to communicate about their experience of gender.

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References

American Psychiatric Association [APA]. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). APA. Australian Psychological Society. (2018). Information sheet: Australian Psychological Society recommends mental health practices that affirm transgender people's experiences. Australian Psychological Society. https://www.psychology. org.au/getmedia/00cd6bab-650a-431b-bc67-fdfb69729b83/ Info-Sheet-Transgender-affirmation-extended-version.pdf Berg, D., & Edwards-Leeper, L. (2018). Child and family assessment. In C. Keo-Meier & D. Ehrensaft (Eds.), The gender affirmative model: An interdisciplinary approach to supporting transgender and gender expansive children. American Psychological Association. https://doi.org/10. 1037/0000095-007



- Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., Fraser, L., Green, J., Knudson, G., Meyer, W. J., Monstrey, S., Adler, R. K., Brown, G. R., Devor, A. H., Ehrbar, R., Ettner, R., Eyler, E., Garofalo, R., Karasic, D. H., ... Zucker, K. (2012). Standards of care for the health of transsexual, transgender, and gender-nonconforming people, V7. The World Professional Association for Transgender Health.
- Connolly, M. D., Zervos, M. J., Barone, C. J., Johnson, C. C., & Joseph, C. L. M. (2016). The mental health of transgender youth: Advances in understanding. The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine, 59(5), 489-495.https:// doi.org/10.1016/j.jadohealth.2016.06.012
- De Vries, A. L., Noens, I. L., Cohen-Kettenis, P. T., van Berckelaer-Onnes, I. A., & Doreleijers, T. A. (2010). Autism spectrum disorders in gender dysphoric children and adolescents. Journal of Autism and Developmental Disorders, 40(8), 930-936. https://doi.org/10.1007/s10803-010-0935-9
- Deogracias, J. J., Johnson, L. L., Meyer-Bahlburg, H. F., Kessler, S. J., Schober, J. M., & Zucker, K. J. (2007). The gender identity/gender dysphoria questionnaire for adolescents and adults. Journal of Sex Research, 44(4), 370-379. https://doi.org/10.1080/00224490701586730
- Johnson, L. L., Bradley, S. J., Birkenfeld-Adams, A. S., Radzins Kuksis, M. A., Maing, D. M., Mitchell, J. N., & Zucker, K. J. (2004). A parent-report gender identity questionnaire for children. Archives of Sexual Behavior, 33(2), 105-116. https://doi.org/10.1023/B:ASEB.0000014325.68094.f3
- Hakeem, A., Črnčec, R., Asghari-Fard, M., Harte, F., & Eapen, V. (2016). Development and validation of a measure for assessing gender dysphoria in adults: The gender preoccupation and stability questionnaire. International Journal of Transgenderism, 17(3-4), 131-140. https://doi. org/10.1080/15532739.2016.1217812
- Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the minority stress model. Professional Psychology: Research and Practice, 43(5), 460-467. https://doi.org/10.1037/a0029597
- Mahfouda, S., Panos, C., Whitehouse, A. J. O., Thomas, C. S., Maybery, M., Strauss, P., Zepf, F. D., O'Donovan, A., van Hall, H.-W., Saunders, L. A., Moore, J. K., & Lin, A. (2019). Mental health correlates of autism spectrum disorder in gender diverse young people: Evidence from a specialised child and adolescent gender clinic in Australia. Journal of Clinical Medicine, 8(10), 1503. https://doi.org/10.3390/jcm8101503
- McGuire, J. K., Berg, D., Catalpa, J. M., Morrow, Q. J., Fish, J. N., Nic Rider, G., Steensma, T., Cohen-Kettenis, P. T., & Spencer, K. (2020). Utrecht Gender Dysphoria Scale -Gender Spectrum (UGDS-GS): Construct validity among transgender, nonbinary and LGBQ samples. International Journal of Transgender Health, 21(2), 194-208. https:// doi.org/10.1080/26895269.2020.1723460

- McGuire, J. K., Rider, G. N., Catalpa, J. M., Steensma, T. D., Cohen-Kettenis, P. T., & Berg, D. (2019). Utrecht Gender Dysphoria Scale - Gender Spectrum (UGDS-GS). In R. R. Milhausen, J. K. Sakaluk, T. D. Fisher, C. M. Davis, & W. L. Yarber (Eds.), Handbook of sexualityrelated measures (4th ed., pp. 359-362). Routledge.
- Pan, L., Moore, A. (2014). The gender unicorn. TSER Trans Student Educational Resources. http://www.transstudent. org/gender
- Riley, E. (2017). The gender feeling amplitude: An instrument to assist clinicians with the assessment of gender diverse adolescents. Sexual Health, 14(5), 436-441. https://doi.org/10.1071/SH17009
- Riley, E. A., Sitharthan, G., Clemson, L., & Diamond, M. (2013). Recognising the needs of gender-variant children and their parents. Sex Education, 13(6), 644-659. https:// doi.org/10.1080/14681811.2013.796287
- Schneider, C., Cerwenka, S., Nieder, T. O., Briken, P., Cohen-Kettenis, P. T., De Cuypere, G., Haraldsen, I. R., Kreukels, B. P. C., & Richter-Appelt, H. (2016). Measuring gender dysphoria: A multicenter examination and comparison of the Utrecht gender dysphoria scale and the gender identity/gender dysphoria questionnaire for adolescents and adults. Archives of Sexual Behavior, 45(3), 551-558. https://doi.org/10.1007/s10508-016-0702-x
- Strauss, P., Cook, A., Winter, S., Watson, V., Wright Toussaint, D., & Lin, A. (2017). Trans Pathways: The mental health experiences and care pathways of trans young people. Summary of results. Telethon Kids Institute. http://telethonkids.org.au/transpathways
- Strauss, P., Cook, A., Winter, S., Watson, V., Wright Toussaint, D., & Lin, A. (2020). Association between negative life experiences and the mental health of trans and gender diverse young people in Australia: Findings from Trans Pathways. Psychological Medicine, 50(5), 808-817. https://doi.org/10.1017/S0033291719000643
- Telfer, M. M., Tollit, M. A., Pace, C. C., & Pang, K. C. (2018). Australian standards of care and treatment guidelines for transgender and gender diverse children and adolescents. The Medical Journal of Australia, 209(3), 132-136. https://doi.org/10.5694/mja17.01044
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. American Journal of Evaluation, 27 (2), 237-246. https://doi.org/10.1177/ 1098214005283748
- Van Der Miesen, A. I. R., Hurley, H., & De Vries, A. L. C. (2016). Gender dysphoria and autism spectrum disorder: A narrative review. International Review of Psychiatry (Abingdon, England), 28(1), 70-80. https://doi.org/10. 3109/09540261.2015.1111199
- Zucker, K. J., & Bradley, S. J. (1995). Gender identity disorder and psychosexual problems in children and adolescents. Guilford Press.